

Claims.

1. A single coil generator comprising:
a rotor journalled in an generator frame, said rotor having a plurality of poles,
a stator with a like number of salient poles, each including alternately wound coils
5 forming a single coil with two free ends, generating AC that is connected to an AC load.
2. The generator of claim 1 wherein the output is split into AC and rectified DC.
3. The generator of claim 2 wherein the AC output is connected to a first AC load
through AC rated switches, and the rectified DC is connected to a second DC load
through DC rated switches.
- 10 4. The generator of claim 1 wherein the output is having any combinations of
low and high voltage as well as AC and DC.
5. The generator of claim 1 wherein said rotor is having claw-shaped magnetic poles.
6. The generator of claim 1 wherein said rotor is having permanent magnet poles.
7. The generator of claim 1 wherein said stator poles have same dimensional width
15 as said rotor poles.
8. The generator of claim 2 wherein the AC output is rectified by four diodes
in a bridge circuit and then is connected to a DC load.
9. An output option generator with low loss switching devises comprising:
a generator having a rotor with a plurality of poles, and a stator with a like number of salient poles,
20 each including alternately wound coils forming a single coil with two free ends ,
its AC output connected to a first load through AC rated switches,
said AC output rectified and connected to a second load through DC rated switches.
10. The generator of claim 9 wherein said first load consists of incandescent lamps,
heaters and AC motors, and wherein said second load consists of DC motors, actuators and a battery.
- 25 11. The generator of claim 9 wherein said first output is voltage regulated with Triac's or S.C.R.'s

12. The generator of claim 9 wherein the output is split into AC and rectified DC.
13. The generator of claim 9 wherein the output is having any combinations of low and high voltage as well as AC and DC.
14. The generator of claim 9 wherein said rotor is having claw-shaped magnetic poles.
- 5 15. The generator of claim 9 wherein said rotor is having permanent magnet poles.
16. The generator of claim 9 wherein said stator poles have same dimensional width as said rotor poles.
17. The generator of claim 9 wherein the AC output is rectified by four diodes in a bridge circuit and then is connected to a DC load.
- 10 18. The generator of claim 9 wherein said four diodes are the sole diodes in the generator system.
19. The generator of claim 1 wherein said alternately wound coils are in a position in front of said rotor poles to generate AC at all times.
20. The generator of claim 6 wherein its construction is brushless and void of slip rings.
21. The generator of claim 8 wherein said D.C. load is having a capacitor connected across it.
- 15 22. The generator of claim 2 wherein the AC output and the D.C. output have a common ground.

Abstract.

A more fuel efficient automotive generator, then present alternators, because of its better magnetic utilization of its series connected copper windings on its salient stator poles.

It also has output options for resistive loads as well as for direct current devices

- 20 with both options designed for lower cost, smaller physical size, greater electrical efficiency and lower diode losses.